

Response to OA of November 21, 2003
Ser. No. 10/037,564

Page 10 of 18

REMARKS

In view of the following remarks, Applicant respectfully requests reconsideration and allowance of the subject application. This amendment is believed to be fully responsive to all issues raised in the November 21, 2003

5 Office Action.

With respect to the Amendment to the Specification, Applicant asserts that the Abstract is submitted with the understanding that it will not be used to interpret or limit the scope or meaning of the claims. 37 C.F.R. 1.72(b).

As stated above, claims 1, 7, 8 and 11 are currently amended. In particular, claims 7 and 8 are currently amended without prejudice to correct typographical errors. Claims 57, 58 and 59 are new and based on objected to subject matter of prior claims (e.g., 38, 53 and/or 56). Claim 42 is requested to be reinstated as part of the elected species. Claims 1, 2, 7, 8, 11, 32, 37, 38, 49, 52, 53 and 56-59 are pending.

15

Claim 1

Claim 1, as currently amended, is directed to a heat exchanger comprising:

- 20
- a. *a core having a variable size; and*
 - b. *a support structure connected to the core, the support structure having a fluid-biased, deformable member for accommodating variations in the size of the core.*

Response to OA of November 21, 2003
Ser. No. 10/037,564

Page 11 of 18

Claim 1 is currently amended to more particularly state that the deformable member is fluid-biased. Applicant submits that the subject matter of claim 1 as currently amended is not anticipated by any reference of record.

The Office rejected claim 1 under 35 U.S.C. §102 as being anticipated by
5 Matsuo Shinobu (JP 40802977A). Applicant relies on JP8029077 to Matsuo Shinobu for this response. Applicant submits that claim 1, as currently amended, is not anticipated by the JP8029077 reference.

According to §102, a reference must enable one of skill in the art to make the anticipating subject matter, thus placing the disclosed subject matter
10 in the possession of the public, see, e.g., Scripps Clinic & Research Fdn. v. Genentech, Inc., 927 F.2d 1565, 1576 (Fed. Cir. 1991). If a cited reference is not enabling of anticipating subject matter, that subject matter cannot be used as a basis for a §102 rejection. Applicant submits that the JP8029077 reference is not enabling of anticipating the subject matter of claim 1 as
15 amended. In particular, the JP8029077 reference does not enable a fluid-biased, deformable member.

The Office refers to item 21, the "metallic bellows" (English language Abstract of JP8029077), as a biased deformable member. As described in JP8029077, this item includes item 22, "coil springs" (English language Abstract
20 of JP8029077). As stated in JP8029077, "a manifold mounted on the other side is connected to the pressure vessel via bellows and elastic members" and "thermal stress does not occurs [sic] on the laminate body 1 as the difference is

Response to OA of November 21, 2003
Ser. No. 10/037,564

Page 12 of 18

absorbed by the expansion or contraction of the bellows 21 and the coil springs 22" (English language Abstract of JP8029077). Further, the "metallic bellows" 21 act to isolate fluid flow paths 23 and 24.

Applicant submits that the "metallic bellows" 21 of the JP8029077 reference cannot function as a fluid-biased, deformable member. In particular, the "metallic bellows" have a fluid inlet and a fluid outlet. The fluid inlet receives low temperature fluid from a laminate body and the fluid outlet exits to a header. With respect to fluid dynamics, fluid flows from a high pressure to a low pressure. Thus, the fluid outlet is at a low pressure when one considers the entire structure of Figure 1 of the JP8029077 reference. Further, fluid pressure varies inversely with temperature. These two factors, i.e., (i) fluid outlet and (ii) low temperature, indicate that any biasing between the laminate body 1 and the header 20 occurs via the coil springs 22 and not the "metallic bellows". Indeed, pressurizing the "metallic bellows" 21 of the JP8029077 reference would be likely to (i) increase temperature of the low temperature fluid and (ii) reduce fluid flow through the laminate body. This makes no sense and consequently, the JP8029077 reference does not enable a fluid-biased, deformable member.

For at least the aforementioned reasons, Applicant submits that claim 1, as currently amended, is patentable over the JP8029077 reference.

20

Claims 2, 7 and 8

Response to OA of November 21, 2003
Ser. No. 10/037,564

Page 13 of 18

Claims 2, 7 and 8 depend on claim 1 and hence Applicant submits that claims 2, 7 and 8 are patentable for at least the same reasons as claim 1.

Claim 7 is currently amended to correct an inadvertent typographical error by correcting its dependence from claim 2 to claim 1. Claim 8 is currently
5 amended to correct an inadvertent typographical error by correcting its dependence from claim 8 to claim 2. Applicant notes that this amendment addresses a §112, ¶2 issues raised by the Office.

Claim 11

10 Claim 11, as currently amended, recites a heat exchanger comprising:
a. a core having a variable length; and
b. a support structure, wherein the core is received by the support structure, wherein the support structure comprises a fixed member and an attached fluid-biased, deformable member for accommodating variations in
15 the length of the core while applying a biasing force to the core.

Claim 11 is currently amended to more particularly state that the deformable member is fluid-biased. Applicant submits that the subject matter of claim 11 as currently amended is not anticipated by any reference of record.

20 The Office rejected claim 11 under 35 U.S.C. §102 as being anticipated by Matsuo Shinobu (JP 40802977A). Applicant relies on JP8029077 to Matsuo Shinobu for this response. Applicant submits that claim 11, as currently amended, is not anticipated by the JP8029077 reference.

Response to OA of November 21, 2003
Ser. No. 10/037,564

Page 14 of 18

According to §102, a reference must enable one of skill in the art to make the anticipating subject matter, thus placing the disclosed subject matter in the possession of the public, see, e.g., Scripps Clinic & Research Fdn. v. Genentech, Inc., 927 F.2d 1565, 1576 (Fed. Cir. 1991). If a cited reference is not enabling of anticipating subject matter, that subject matter cannot be used as a basis for a §102 rejection. Applicant submits that the JP8029077 reference is not enabling of anticipating the subject matter of claim 11 as amended. In particular, the JP8029077 reference does not enable a fluid-biased, deformable member.

10 The Office refers to item 21, the "metallic bellows" (English language Abstract of JP8029077), as a biased deformable member. As described in JP8029077, this item includes item 22, "coil springs" (English language Abstract of JP8029077). As stated in JP8029077, "a manifold mounted on the other side is connected to the pressure vessel via bellows and elastic members" and
15 "thermal stress does not occurs [sic] on the laminate body 1 as the difference is absorbed by the expansion or contraction of the bellows 21 and the coil springs 22" (English language Abstract of JP8029077). Further, the "metallic bellows" 21 act to isolate fluid flow paths 23 and 24.

Applicant submits that the "metallic bellows" 21 of the JP8029077
20 reference cannot function as a fluid-biased, deformable member. In particular, the "metallic bellows" have a fluid inlet and a fluid outlet. The fluid inlet receives low temperature fluid from a laminate body and the fluid outlet exits to a header.

Response to OA of November 21, 2003
Ser. No. 10/037,564

Page 15 of 18

With respect to fluid dynamics, fluid flows from a high pressure to a low pressure. Thus, the fluid outlet is at a low pressure when one considers the entire structure of Figure 1 of the JP8029077 reference. Further, fluid pressure varies inversely with temperature. These two factors, i.e., (i) fluid outlet and (ii) low temperature, indicate that any biasing between the laminate body 1 and the header 20 occurs via the coil springs 22 and not the "metallic bellows". Indeed, pressurizing the "metallic bellows" 21 of the JP8029077 reference would be likely to (i) increase temperature of the low temperature fluid and (ii) reduce fluid flow through the laminate body. This makes no sense and consequently, the JP8029077 reference does not enable a fluid-biased, deformable member, especially one that can apply a biasing force to a core.

For at least the aforementioned reasons, Applicant submits that claim 11, as currently amended, is patentable over the JP8029077 reference.

Claims 32, 37 and 38

Claims 32, 37 and 38 depend on claim 11 and hence Applicant submits that claims 32, 37 and 38 are patentable for at least the same reasons as claim 11. Applicant notes that claim 38 was objected to as being dependent on a rejected base claim. Claim 38 has been re-written in independent form as new claim 57. Further, Applicant submits that claim 38, as it depends on claim 11, as currently amended, is patentable for at least the same reasons as claim 57.

Response to OA of November 21, 2003
Ser. No. 10/037,564

Page 16 of 18

Claim 42

Applicant submits that claim 42 was inadvertently withdrawn and should be reinstated as claim 42. Claim 42 recites subject matter of a related species to the elected subject matter. Further, claim 42 depends on claim 37, which
5 was included in the election. Applicant submits that claim 42, as it depends on claim 11, is patentable for at least the same reasons as claim 11.

Claims 49, 52, 53 and 56

Claims 49, 52, 53 and 56 depend on claim 11 and hence Applicant
10 submits that claims 49, 52, 53 and 56 are patentable for at least the same reasons as claim 11. Applicant notes that claim 56 was objected to as being dependent on a rejected base claim. Claim 56 has been re-written in independent form as new claim 58. Further, Applicant submits that claim 56, as it depends on claim 11, as currently amended, is patentable for at least the
15 same reasons as claim 58.

New Claims 57 and 58

Applicant has discussed claims 57 and 58 above. In particular,
represented or new claim 57 is claim 38 re-written in independent form and
20 represented or new claim 58 is claim 56 re-written in independent form. In the Office Action dated November 21, 2003, the Office indicated that the subject

Response to OA of November 21, 2003
Ser. No. 10/037,564

Page 17 of 18

matter of claims 38 and 56 would be allowable if re-written in independent form.

Applicant respectfully requests allowance of these re-written claims.

New Claim 59

- 5 Applicant presents new claim 59 based on reasons stated by the Office for allowance of claims 38, 53 and 56 re-written in independent form. In particular, new claim 59 recites in part *"the bellows comprises two plates with an expandable wall mounted between the plates and wherein the bellows is wider than the core"*. For at least the reasons stated in the Office Action dated
- 10 November 21, 2003, Applicant respectfully requests allowance of new claim 59.

Conclusion

- Claims 1, 2, 7, 8, 11, 32, 37, 38, 42, 49, 52, 53, and 56-59 are believed to be in condition for allowance. Applicant respectfully requests reconsideration
- 15 and prompt issuance of the present application. Should any issue remain that prevents immediate issuance of the application, the Examiner is encouraged to contact the undersigned attorney to discuss the unresolved issue.

Response to OA of November 21, 2003
Ser. No. 10/037,564

Page 18 of 18

Respectfully Submitted,

Lee & Hayes, PLLC

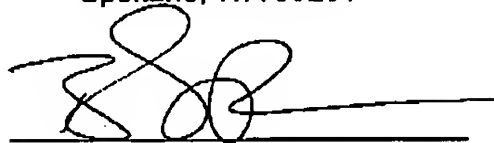
421 W. Riverside Avenue, Suite 500

Spokane, WA 99201

5

Dated:

2/23/04



Name: Brian J. Pangre

Reg. No. 42,973

10

Phone No. (509) 324-9256 ext. 231